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SPASMODIC ACTION OF THE ABDOMINAL MUSCLES SIMULATING THE MOTIONS OF PREGNANCY.

Read to the Boston Society for Medical Improvement, Jan. 3d, 1870, by Dr. C. G. PUTNAM.

MISTAKES in regard to the existence, whether of fancied or imputed pregnancy, are sometimes unavoidable, not only in the early but in the later months. Yet a correct diagnosis may be most essential in saving the practitioner from obloquy—the married from inappropriate treatment or the unmarried from ruinous suspicion.

In the present case the phenomena were unusually persistent—covering a period of eight years and, though to a certain extent characteristic of the affection, were sufficiently obscure to make the diagnosis doubtful. The patient was 40 years old, well proportioned, of healthy appearance, dark hair and eyes, the mother of three children. At my first visit the enlargement of the abdomen appeared to be that of the full period of gestation. I noticed the frequent occurrence of abrupt vertical motions so strong, at times, as to jerk the whole trunk of the body, and cause her to "catch her breath." Occasionally she swayed from side to side, as if compelled to yield to heavy lateral plunges within. She thought herself to be near the close of pregnancy, and a short time previously the late Dr. Gay, who requested me to take charge of the case, had passed a night in the house in expectation of the parturition. I made a cursory auscultation, but heard only the intestinal sounds, and without further investigation left her, with the presumption that she was on the eve of confinement.

On my next visit a thorough, careful auscultation satisfied me that there was neither soufflet nor fetal pulsation. I then ascertained that the texture and length of the neck of the uterus were not changed, and that the uterus was not materially, if at all, increased in size, so that if there was

an ovum it was not, at least, intra uterine. This was in February, 1850. Upon questioning, she then said that her last child was born in February, 1846, weaned in April, 1848. Menstruation immediately occurred and continued till July, 1848. In May, 1849, she was as large as at the full term. In December, 1849, seven months afterward, had a fall, flowed profusely, and supposed she had miscarried.

From this point the record of the case went on as follows:—May 31st, 1850.—Menstruation now present. Has suffered from "bearing down." Os and cervix uteri less firm than before. Externally a sulcus an inch and a half broad and about an inch deep, extends from three inches above to three inches below the umbilicus, which latter is thus in a deep groove or pit. Abdomen more prominent on the left than on the right; resonant on percussion. The breasts enlarged and tender; follicles of areolæ turgid and moist. July 28th, 1850.—The sensation of distention "cramping" in the abdomen is so great as to cause faintness. No change in the cervix or fundus. Abdomen now more prominent on the right. September 7th, motion less, but the feeling of distention greater.

March 25th, 1852.—For the last nine months has been gradually but very decidedly lessening in size. Menstruation has recurred. May, 1852.—I find the size increasing. The motion is violent, and on pressing the abdomen a solid body, apparently, rolls under the hands or is thrown from side to side, as if from an alternate action of the recti muscles. Jan. 1st, 1853.—No menstruation since July, 1852. Nov., 1853.—Constant pain in back and limbs—cannot lie in bed for more than an hour—often passes the night in her chair.

Let us recapitulate for a moment, and fancy the patient before us. A brilliant brunette, above the medium height, naturally symmetrical in figure. The abdomen enlarged as at the full period of gestation—rounded except at the umbilicus, which lies in a deep groove. We see her jerked in her chair by movements apparently intra-abdominal, that no one at first sight would

hesitate to call those of a fetus in utero. On further investigation we find not an elastic uterine tumor, but a resisting doughy mass, heaving and rolling under the hands. We find that the breasts are enlarged, the areolæ dark, the follicles moist and turgid, that the menstruation is irregular and not precisely dated. The size, weight, and mobility of the uterus apparently normal, the cervix varying a little in density from time to time. Upon auscultation, that there is neither soufflé nor foetal pulsation. We find the resonance of the abdomen, on percussion, varying occasionally, but no sharply defined limits of dulness and resonance that we should expect in advanced pregnancy.

Cases are occasionally met with in which pregnancy is suspected where it does not exist, and others in which, when present, it escapes detection in spite of careful scrutiny. In the present case intra-uterine foetation seemed scarcely possible. If extra-uterine, the fetus and appendages, instead of presenting a somewhat defined and movable tumor, would probably have been in a fixed position and of irregular form, and would necessarily have given rise to pain and constitutional irritation.

Enlargement of the ovary was of course one of the first suggestions, but the sensation conveyed, on pressure, was not that of a defined mass, and the resonance on percussion was inconsistent with the presence of so large a tumor, whether solid or encysted. The uterus was not displaced, as it probably would have been by the pressure of any large tumor. There was nothing in the complexion or state of health that would lead to suspicion of mesenteric disease. In the absence of any hint to be derived from disturbance of function a fatty degeneration of the omentum was suggested, but against this supposition was the enlargement below as well as above, and resonance where there should have been dulness on percussion.

During the investigation, in which I had, on various occasions, the assistance of gentlemen of note, at home and abroad, two opinions chiefly prevailed. 1. That the motion of the abdominal muscles indicated the presence of a living body within. 2. That it was merely spasmodic, and was caused by the pressure of some adventitious tumor. She herself, amply familiar with the symptoms of pregnancy, insisted on that condition. An imperfect kind of menstruation was made to tally with this idea, and when the ordinary period of gestation had passed, when expectation had failed and prophe-

cies had been belied by the event, she would fall back on the possibility of extra-uterine foetation, and the inception of another pregnancy, for, although usually fatal, it could not be denied that a few had outlived such an accident, and afterwards passed through healthy parturition. Of course there were not wanting friends to narrate such facts and encourage hopes that she never utterly abandoned.

On the last of October, 1857, she was suddenly attacked with painful vomiting and retching, great distress and jactitation. The liver could be felt below the edge of the ribs. Jaundice ensued, and without mitigation of symptoms, continued till her death, which took place in a fortnight after this acute attack.

At the autopsy there was found—nothing: that is to say, nothing to account for the chronic affection. The abdominal parietes were somewhat more than two inches in thickness. There was enlargement and granulation of the liver, of recent origin. There was a degree of adipoceros transformation in the omentum, but it did not affect its size, and could not be associated with nor explain the phenomena. No unusual distention either of the large or small intestine. Uterus and appendages normal.

HOMICIDES BY CHLOROFORM.

By INNOMINATUS.

To an article with the above caption in a former number of this Journal the Editor of the *British Medical Journal* has recently replied as follows:—

"*Anæsthetics in America.*—Our recent articles on chloroform accidents have excited considerable attention in the United States. An anonymous writer in the Boston Medical and Surgical Journal, an advocate of the use of ether, heads his article 'Homicides by Chloroform,' and reprints our memoranda as a warning in reference to the dangers which attend that anæsthetic. He asserts that ether is an agent 'equally effective, and known to be perfectly safe.' He suggests that 'a trial for manslaughter with a New England jury would bring British practitioners to a quickened sense of responsibility in the matter.' We should be glad to know whether it is not the fact that chloroform is very largely used in the United States. In some hospitals there its use is, we believe, prohibited by rule; but we have been informed that, in some instances, the surgeons who are thus compelled to use ether for their hospital pa-

tients, almost always employ chloroform for their private ones. If this be so, it amounts to strong testimony as to the practical inconvenience of ether-inhalation. The subject is a very important one, and we shall be glad of information from a candid and dispassionate source. The article from which we have quoted reads too much like the production of a partisan."

These requests of the British Editor Innominatus "would be glad" to answer—premisng, however, that he is not a surgeon, and has no interest in the matter, other than the establishment of the truth, which he most earnestly seeks and advocates. In no other sense is he "a partisan" of this or any other medicinal agent; and the appearance of partisanship, if any as charged, is due to the force of the facts themselves, and not to his advocacy.

It is true that years ago the use of chloroform for anæsthetic purposes was forbidden at one of the New England hospitals by its Trustees, after a number of severe "accidents" caused by that article, some of which were fatal. But, so far as Innominatus can ascertain, and he has made diligent inquiries, no one of the surgeons or medical officers of that institution ever employs chloroform for anæsthetic purposes in private or public practice. Innominatus cannot learn that any such rule has been adopted in any other New England hospital. "The United States" is a large territory, and there are a great many hospitals in it; some may have adopted the rule spoken of, and possibly some of their surgeons may employ chloroform in their private practice, as alleged by the British Journal; if so, the more's the pity—but Innominatus has not yet been able to discover their local habitations, or their names.

It is a pity also, and pity 'tis 'tis true, that trustees, and not medical men themselves, should ever feel obliged to make such rules to restrain practitioners; or that physicians should ever, here or in Britain, be guilty of reprehensible practices in their own calling that compel the public to interpose measures to protect themselves. But we can assure the British Editor that the use of chloroform as an anæsthetic is fast declining in New England, and probably also throughout the United States; and that so strong are the convictions of the most eminent in the profession hereabouts of the unnecessary hazard to which life is subjected by administering chloroform for anæsthetic purposes merely, that in a fatal case therefrom a medical defendant would not, in face of their testimony, be secure

from a verdict of homicide under legal process.

"The practical inconvenience of ether-inhalation," the Editor speaks of, has always been greatly overrated, and has of late been much diminished. As to the practitioner, it never did at all compare with the multitudinous disadvantages indicated in the necessary precautions in the administration of chloroform, as enumerated in the "Memoranda" of the British Journal. As to the patient—of what account are "inconveniences" when safety is at stake! Here there can be no comparison. It cannot be too often, or too strongly repeated that while hundreds of deaths are conceded to have occurred from the inhalation of chloroform, not one has as yet with any show of reason* been attributed to the inhalation of ether. There were three thousand administrations of ether by inhalation for all purposes in *one* of our hospitals *last* year, and a similar number yearly for twenty years past, without serious "inconvenience," or a single death. The same may be said of our other hospitals, at some of which the number of yearly administrations of ether by inhalation cannot be much less.

For the rest, this paper cannot be terminated better than by a few extracts from an article by M. Petrequin, of Lyons, translated for and printed in this Journal, Oct. 3d, 1867. M. Petrequin cannot be suspected of local prejudice, or of being "a partisan" in this matter.

"The choice between ether and chloroform for anæsthetic purposes must rest upon experience. In the history of the two, ether has made notable progress—both in methods of administration and in purification. Complete anæsthesia can be produced by it with certainty and safety. It is not so with chloroform! No method of administration has removed its dangers, and no purification of the agent has secured safety. In fact, it has not made progress in either respect, and still continues year by year to furnish its numbers of victims.

"Inasmuch, therefore, as ether is equally effective in all cases, and has not the dangers of chloroform, it is, in strict logic, an

* A single illustration will suffice. It appears that in this vicinity a young woman, who had become almost idiotic from long-continued epilepsy, the paroxysms of which had been repeatedly mitigated and the fatal termination averted by the inhalation of ether, recently died in a paroxysm which ether could not subdue. This is gravely reported as a death from ether. The editor of a distant Journal, through which we first heard of the case, himself an advocate of chloroform, adds:—"It seems to us that the fatal result was due to advancing cerebral disease rather than to the anæsthetic."

imperative duty to use ether instead of chloroform as an anæsthetic. * * * *

"Impurities may render etherization laborious, disagreeable, complicated with nausea and nervous excitation, but are not in themselves essentially dangerous. Besides, all these impurities may be removed by washing and subsequent distillations carried to the required rectification. * * * *

"The danger lies in chloroform itself. If it kills, it is because it is in its nature a poison.

"In the actual state of science, then, the only way to avoid the censure of society, to secure the protection of justice, and above all, to remain at peace with one's own conscience, is to discard forever a dangerous agent, which, every time that it is used, puts at hazard the fearful question of life or death."

CONTRIBUTIONS TO PATHOLOGY AND PRACTICAL MEDICINE.

By JOHN P. METTAUER, M.D., LL.D., of Virginia.

GENITO-SEMINAL NEUROPATHIA.

THIS disease has been variously termed progressive locomotor ataxia; tabes dorsalis; Duchenne's disease; myelo-phthisis; progressive spinal paralysis; Todd's disease; locomotor ataxia; partial paralysis; progressive locomotor synergia; atrophy of the posterior columns of the spinal cord; and some others; and has been long known to the profession, but comparatively imperfectly understood as to its causation and nature. More than thirty years since Romberg described the disease, and perhaps first grouped together its symptoms. So early as 1837, Cruveilhier, in his pathological anatomy, reports cases of the disease, and after stating the symptoms, describes the anatomical lesions as consisting of a yellowish-gray transformation of the posterior columns of the spinal cord. The opinions of Romberg in regard to the nature of the disease were generally adopted in Europe, yet in France the appellation of Duchenne's disease was bestowed upon it.

Since the publication of the paper of Duchenne in 1858, many valuable contributions have been made to the literature of this affection, both at home and abroad, going to prove that genito-seminal neuropathia is not a new disease.

The earlier writers, with Romberg and Cruveilhier at their head, regarded the disease as tabes or atrophy of the posterior columns of the spinal cord, and that its

phenomena are due to fixed organic lesions. Others, especially those of the Trousseau school, considered it a neurotic affection, and that the structural changes met with are merely incidental complications, or the results of the disease under certain circumstances. Such opposite views in regard to the presence or absence of anatomical lesions in this disease are not more remarkable than in some others which have been examined *post mortem*, and they are to be reconciled by referring them to the different periods or stages of the disease at which the examinations were made, or perhaps to the imperfectness of such examinations. That lesions of structure do occur in this disease the writer has not a doubt, and he believes also they may be present in such degrees as not to be recognizable. There may, even, be lesions of function, in which the molecular disarrangement of the organism is so slight, as only to be detected by the perverted functional exercises during life. Indeed, there are good reasons for the belief, that progressive locomotor ataxia, in a majority of cases, consists, primarily, in perverted functional impressibility and innervation chiefly, structural metamorphoses only following as accidents when they do occur.

This disease was early regarded as a form of paralysis, or as partial paralysis, and was denominated by Sir Charles Bell as such, but distinguished from absolute palsy as a simple inability to coördinate muscular acts, in which there was no defect of power, but simply a want of harmony and consent of action of the implicated muscles, or ataxia musculationum. The views of the writer are in accordance with Sir Charles Bell's, as they relate to the irregular action of the muscles of locomotion, and in regarding the morbid condition as paralytiform, but differing from true palsy in its characters and causation, as well as in its development. The essential character of this affection, so far as it can be inferred from the symptoms and conjectural causation, seems to be neurotic; and perverted innervation, both sensory and motory, probably is the morbid condition. This abnormal state seems to depend upon exalted functional impressibility, both sensory and motory, with more or less impairment of the vital tone, and it may continue for a length of time before it reacts upon the organs of locomotion. Finally, these last are implicated, and incoördinate movement is the form under which the morbid condition is manifested. The will now has lost its power of controlling muscular action in greater or less degrees,

and the disturbed condition of the functional sensibilities has impaired proportionally the coördination of relation subsisting naturally between the impelling and subordinate forces. Locomotion now is imperfectly executed, and is more or less unsatisfactory; the mental exercises are disordered in various ways and degrees, sight is impaired, as well as hearing, and, now and then, general feeling is more or less perverted, being sometimes unduly exalted, while at others it is abnormally depressed.

Being chiefly a nervous affection, the perverted action continues for a length of time without disturbing the coördination of muscular acts, or the molecular arrangement of the organism, so far as to give rise to structural metamorphosis. As the disease continues, various symptoms are developed, chiefly of a neuralgic character, particularly shifting pains of the loins, hips, groins, testes, extremities lower and upper, head, face, neck, chest, and uterus with females. At the same time there is usually more or less general nervousness; yet, in a large majority of cases, little, if any disturbance of the locomotive exercises is to be observed for a length of time, only so far as pain may be concerned. Even when pain is elicited, by attempts at locomotion, the will has complete control in impelling, or restraining musculature; and the withholding of the volitional effort is due to the exercise of that faculty and not ataxia or any form or degree of paralysis. When ataxia sets in, it is probable, decided lesion of functional impressibility, or of structure, may have resulted, which, in either case, would tend to impair functional, as well as organic exercise of the nerves and muscles, and proportionally, also, the normal relations subsisting between them and the powers of volition. That continued disturbance of functional exercise tends both to disorganize functional impressibility, and to produce change of structure in the organs affected, can readily be conceived; and such conditions may characterize genito-seminal neuropathia when it advances to the stage of progressive locomotor ataxia. In its early stages it seems to be chiefly, if not wholly, a nervous affection, closely assimilated to neuralgia; while at a more advanced period it puts on fixed characters, due probably to structural changes developed in the implicated organs during its progress. And it may terminate in paralysis, more or less completely formed, if permitted to pursue its course uninterruptedly.

The causation of genito-seminal neuropathia is veiled in much obscurity. For a

number of years the writer has had much to do with it, both with males and females, and besides treating the disease he has been at great pains to investigate everything relating to it. Seminal weakness and spermatorrhœa are the appellations often bestowed upon it, and in the region of country where the writer resides, it is known by those names only. The denomination adopted by the writer is not faultless, but, according to the pathological views from which it is deduced, is equally as applicable as any now in use, with the exception, perhaps, of spermatorrhœa.

The origin of this interesting disease, according to the investigations of the writer, is the genito-seminal organs. In a vast number of cases the disease has been satisfactorily traced by him to those organs; and the treatment, taken in connection with clinical histories of cases, if a doubt existed, would remove it. Careful investigations establish clearly that the seminal orifices, ejaculatory ducts, and seminal vesicles, are jointly the seat of this disease. In some unexplained manner these delicate organs become sources of irritation, which is communicated to the economy at large, but especially to those portions of it sustaining the closest relations with the genital system in a normal state; and the irritation seems to consist of undue functional impressibility, without any declared tendency to superinduce inflammation in the organs primarily or secondarily affected. Throughout its course the nervous character originally impressed upon it is retained, and can be readily distinguished; yet its intensity is sufficient to disturb the entire economy in greater or less degrees, and if not remedied sooner or later may end in death. It seems to act through the functional sensibilities chiefly, and hence results the very gradual impairment of the constitutional health, with comparatively slight distinguishable disease in any particular organ for a length of time.

The cause of this irritation of the genito-seminal organs evidently must be deduced from their exercise. In many instances, with patients treated by the writer, excessive sexual intercourse has seemed to have induced it; and then, again, cases have occurred in which there was no reason to suspect such indulgence, or the practice of self-pollution. It is very possible that mental onanism, in the form of nocturnal pollutions, may induce it, but it is more probable those emissions are the result of preëxisting irritation of the seminal organs. Lascivious thoughts induced in any manner,

if often indulged, or of prolonged continuance, may, finally, give rise to it, and very probably more frequently than suspected. The severe pain of the testes occasionally following the excitement accompanying such desires, gives evidence that sexual appetite ungratified can produce painful irritation of at least a portion of the genital apparatus. Indeed, the writer has witnessed examples of hernia humoralis from prolonged sexual appetite ungratified, of severe character.

It is not improbable that any undue venereal excitement, whether due to mental influences or copulation, is capable of inducing the irritation in question. In some instances the complete development of the genital organs has seemed to engender with them an irritated state of their functional exercises, manifested by the phenomena which usually accompany spermatorrhœa, and when there was no ground to suspect that onanism or copulation had been indulged in. Such individuals, it would seem, were not formed for sexual intercourse, or for the work of procreation. They seem to resemble certain classes of insects, which perish as soon as they have impregnated their female partners; and the writer has met with such examples with both sexes, but most frequently with females.

Why the exercise of the genital organs subjects them to a disease, irrespective of that from contamination, can only be conjectured. Very probably, like other organs of the human body, they are liable to have their functional actions disturbed, and actual perversion to follow, from undue exercise of them; or if they are exercised under improper circumstances. With individuals of delicate constitution, moderate indulgence in sexual intercourse might produce the irritation in question, as such indulgence would probably be undue under the circumstances. And sexual intercourse too soon after a severe illness, especially if protracted, would probably be followed by like results. It is probable, in a majority of instances, that delicacy of constitution and excessive sexual indulgence are the most prolific causes of this irritation; and the writer will state that the disease is, in a peculiar manner, incident to individuals of strumous constitutions, in which a predisposing delicacy may be supposed to reside.

Irritation set up in other organs and reflected upon the genital system may originate this erethism, and probably it is after this manner that injuries of the loins from overstrain cause certain forms of blennor-

rhœa, or gleet. In these cases the muscles of the loins reflect the irritation set up in them by the overstrain, through the spinal medulla, kidneys and ureters, upon the seminal orifices of the ejaculatory ducts. Concussion of the spinal medulla from falls, or blows, may also induce it, although the writer has seen no such cases. And catarrhal disturbances, especially those forms tending to develop rheumato-neuralgic irritations, are likewise occasionally succeeded by it. Such causes, however, are not to be regarded in any other view than purely incidental or possible agents in the production of genito-seminal irritation, with the exception, perhaps, of gonorrhœa, which the writer inclines to believe has occasionally induced it; and once established, no matter how produced, its tendency is constantly and progressively to implicate the economy at large. That the irritation is not inflammatory, but chiefly if not wholly nervous, the writer confidently believes; and such characters are imparted to it, in all probability, by the purely nervous excitement which accompanies the copulative act, or even intense venereal desire without intercourse. The irritation is also accompanied with more or less debility, or exhaustion of vital tone, seeming to be merely a prolongation of the feeling of lassitude or languor so constantly following sexual intercourse, or even masturbation; and it retains these characters throughout its entire course, in greater or less degrees of perfectness. Even after it has invaded the economy so far as to set up in contiguous as well as remote organs disturbances more or less intense, such as pain of various descriptions; immobility, enfeebling and wasting of the muscles; impairment of sight, hearing, smelling, appetite, digestion, and of the intellectual exercises, the nervous character of the erethism is greatly predominant. And in the cases which, *post mortem*, have presented anatomical lesions of the spinal medulla and nerves, the irritation seems to have retained its nervous character. This character of the irritation is decidedly marked, even when other causes induce it besides those strictly venereal.

Two forms of this disease are recognized by the writer—that is, the simple and complicated, with their variations, which will next be described; and first:—

Simple Genito-seminal Neuropathia.—This form is most frequently met with, and in the experience of the writer the ratio might be stated at ninety-five per cent. Cases of this description are not in reality simple and devoid of complications, but are gene-

rally so little so as to justify their distribution under this head. In strict propriety no disease is to be regarded as absolutely simple. The irritation in this form is confined chiefly to the genital organs, manifesting itself in slight functional disorder of the genito-urinary organs, and often attended with weakness or pain of the loins and hips. Digestion is often impaired as well as the appetite, and constipation is rarely absent. From its earliest beginning the disease reacts upon the mind; hence depression of spirits, more or less incapacity for business pursuits, and desire for solitude are generally early attendants. Perhaps the first noticeable symptom is increased desire to urinate, more particularly observable at night after retiring; and this is not unfrequently accompanied with some unusual sensation, such as scalding, aching, itching, and post-urinary dribbling. In some cases marked hesitancy precedes the commencement of the flow, and the stream is often unduly small and feeble. Seminal losses, both after urinating and during defecation, are frequently to be observed. Sexual desire is generally impaired, as well as the erections, but cases occasionally occur in which both are unduly increased. Emaciation very soon takes place, and the whole appearance, as well as the manner of the patient, indicate that he feels unwell. In a peculiar manner the countenance expresses the uncomfortable state of the patient's feelings, being a kind of facies prostatica, from which the writer has frequently inferred the condition of patients before asking a question. There is often a gleety discharge.

As the disease advances the symptoms which have been enumerated gradually deteriorate, and with the augmentation of the urinating desire there will often be increase of pain, followed by urethral hæmorrhage in variable degrees of intensity. In some cases the prostatic portion of the urethra, as well as the cervix of the bladder, become so sensitive as to give rise to most distressing stranguary, nay, even to incontinence now and then, as well as perineal tenderness to the extent of rendering it painful to rest that region on a firm seat. The pain of the back, hips, groins, testes, lower and upper extremities, head and chest, has, generally, now, materially increased in severity—not, however, in the different locations which have been named simultaneously, but in one or more of them; yet locomotion, clearly, is impaired only so far as pain is concerned in attempts at motion, the will having complete control of

musculature. Notwithstanding the acute suffering often experienced, very slight, if any, fever can be recognized. The secretions, for the most part, are not perceptibly diminished, and thirst, so constantly the attendant of fever, is rarely if ever present. Restless nights, and gloomy, unhappy days often spent in retirement and seclusion from friends as well as from general society, greatly aggravate the sufferings of patients, which are in a great degree imaginary or magnified, and it is the desperation engendered by such a conflict of feeling that often drives them to suicide or to madness.

Such are the symptoms which characterize the simple form of this disease most commonly; yet they vary much in intensity. In some cases they are so slight as with difficulty to be recognized without exploring the urethra with a sound, and the globe-finished instrument has generally been employed by the writer for the purpose. In a majority of instances, however, little difficulty will be experienced in the diagnosis, but exploration should never be omitted, as it satisfies both physician and patient as to the existence of the disease, which now and then is of much importance when the patient is both timid and skeptical. The exquisite tenderness of the orifices of the seminal ducts, as the globe of the sound passes over them, felt by patients, will remove all doubt of the existence of disease in those orifices.

The *complicated form* is distinguished by most of the phenomena of the *simple*, but differing from it by reason of certain complications which are developed during its progress. Impairment of memory, sight, hearing; impaired locomotion from severe pain, or from incoördination of muscular action from impaired volition, or staxia musculorum; enlarged prostate; ulceration of the vesical mucous lining; hæmaturia; impotence; insanity; and ulceration of the os and cervix uteri of females, are the chief complications of this form. Impaired memory, sight, hearing, and locomotion in some degree, often occur in the simple form, as already stated, and may properly be regarded as common to both forms; while the other complications which have been enumerated belong almost exclusively to the complicated, as far as the observations of the writer enable him to decide.

Whether these complications are due to pathological changes of the molecular arrangements of the organism, or to long-continued perversion of functional exercise,

cannot positively be determined, especially as to some of them. It is probable, however, that more or less organic change exists in every case. As to some of the complications, there can be no doubt of the existence of structural changes. Of the common complications it will not be necessary to do more than refer to them, as, generally, they do not demand any specific treatment differing from that employed in the simple form. Those involving locomotion in incoördinate muscular acts, together with hæmaturia, enlarged prostate, and ulceration of the uterus of females, demand particular attention. Incoördinate musculature is the most interesting and important, by reason of its tendency to impair locomotion, and even to result in paralysis more or less completely formed. This complication has not, in the experience of the writer, been followed by complete impairment of locomotion, but only incoördination of the muscular acts, so far as to render their exercise imperfect and unsatisfactory; and his cases have displayed it chiefly in the lower extremities; yet in a few instances it has appeared in the upper, and both regions presented the incoördination in variable degrees of intensity. Imperfect obedience of the muscles to the powers of volition, or inability of those powers to coördinate in locomotive efforts, seems to constitute the morbid condition upon which this complication depends. But the precise manner of its causation cannot be so easily explained. In some unknown manner the irritation of the genito-seminal organs is reflected upon certain nerves and muscles concerned in locomotion; and, either by perverting their functional sensibility or otherwise, sets up in them a morbid condition which, in greater or less degrees, renders them insusceptible of the inspiratory influences of the will in directing as well as in restraining their actions. The functional exercises of the genital organs in a normal state, during sexual congress, in a remarkable degree call into sympathy very nearly if not all of the organs of the body; and when these exercises become perverted, or put on morbid conditions, it is probable those conditions, or irritations, obey the same sympathetic laws which governed in a healthy state in their diffusion throughout the economy. Why they should be transferred to the organs of locomotion so frequently can only be conjectured; such, however, is the case, but fortunately only in moderate degrees in a large majority of instances; and the reflected irritation is purely nervous,

or probably a form of neuralgia, constituting the disease termed progressive locomotor ataxia—or, as the writer denominates it, genito-seminal neuropathia.

This complication is incident to the advanced stage of the neuropathia, and the paralytiform condition varies much in intensity, the implicated muscles being affected with every conceivable degree of immobility, from the slightest disorder to almost complete paralysis. The irregular action of the muscles, however, seems due more to incoördination than to paralysis of the muscular acts; and with all of their disordered action there seems generally to be no deficiency of power. In some unexplained manner the will has lost its normal control, by reason of which the muscles act irregularly in various ways, and this condition is kept up doubtless by the genito-seminal neuropathia.

It is probable this complication may mark the period at which pathological changes take place in the organs of locomotion, especially the spinal medulla, and it may even be due to those changes in a great degree, which, without, would not occur. This complication, as already intimated, displays paralysis more or less completely formed.

Hæmaturia.—This complication is of rare occurrence, and when present generally exists in slight degrees of intensity. It is often attended with more or less vesical pain during micturition, yet in many cases little, if any, is experienced. The discharge of blood usually takes place at the times of urinating, and seems then to depend chiefly upon the contractions of the bladder, as the blood is red and fluid, and the quantity small, the hæmorrhage ceasing very soon after the bladder is at rest. In these cases the blood seems to be effused from the cervical portion of the vesical cavity. When free hæmorrhage occurs the blood sooner or later causes its expulsion by distending the bladder unduly, and the blood then is dark, and more or less coagulated. If the coagula are large, considerable difficulty will often attend their escape through the urethra. Copious hæmorrhage may take place from the cervix of the bladder, from the cavity proper, or from one or both kidneys. In some instances very free hæmorrhage has been yielded by enlarged, or a granular state of the ejaculatory seminal orifices. This is occasionally a very unpleasant and troublesome complication, especially when confined to the vesical cavity.

Enlarged Prostate.—In very many cases this complication is met with, and, gene-

rally, impresses upon the parent disease characters more or less unfavorable. It occurs, in a majority of instances, with the older description of patients, but is occasionally also met with in quite young persons. In either case, it never fails to increase the depression of spirits, and thus may augment the mental suffering of its unfortunate subjects. Exploration through the rectum with the index finger, and through the urethra with a sound, will generally detect the enlargement. The former is most to be relied on, but urethral examination should likewise be employed, as it also indicates the capacity of the urethra. When considerable it impedes urination, and invariably interferes more or less with the treatment of the original disease.

Ulceration of the Os and Cervix Uteri.—In a good many instances the writer has met with this complication, both with married and single females, but he has not been able to satisfy himself whether the ulcerations existed as accidental coincidence, or in the relation of cause and effect. Whether the product of the neuropathia, or accidentally coincident with it, the cure of the ulceration has, in some extremely interesting cases, been followed by complete and prompt relief of the neuropathia; and in this connection it may be stated that females, both married and single, are very nearly as liable to genito-seminal neuropathia as males, except in the ataxia form involving locomotion.

Ulceration of the Mucous Lining of the Bladder.—In some instances this condition of the bladder coexists with genito-seminal neuropathia, and rarely fails to impart to it much additional perplexity as well as suffering. It is often attended with severe pain of the bladder, which is increased by urination; nay, even the filling of the organ with urine gives rise to pain. The urine is generally loaded with muco-pus, and not unfrequently contains oxalates as well as phosphates of lime also. Hæmaturia likewise accompanies this complication. In some instances fever of hectic form character attends, but it is slight, and the nervous element preponderates. It is difficult to determine whether the ulceration is caused by the diffusion of the prostatic erethism through the vesical mucous lining, or is the result of the oxalatic condition of the urinary secretion. An oxaluric state frequently characterizes the urine in genito-seminal neuropathia, and the ulceration of the bladder is possibly due to that cause. The urine is generally offensive, and de-

posits a heavy sediment of a dingy-white hue. In some cases the ulceration extends entirely through the urethra to the meatus.

Impotence.—In many instances the sexual appetency, as well as the erecting power, are so completely perverted as to render males impotent wholly, or in a great degree. Very often females also suffer great impairment of sexual desire, and while the disease continues refuse positively to indulge in sexual intercourse, declaring at the same time their utter disgust and aversion for it. This complication is due to the more or less complete disturbance of the functional innervation of the genito-seminal organs, by reason of the perversion of their functional impressibilities. It may accompany either form of the neuropathia, and is generally remediable.

Insanity.—In a few instances the writer has met with this complication in slight degrees, and he inclines to the belief that it is the cause of many of the suicides, both with males and females. It is incident, in a peculiar manner, to cases in which seminal weakness is present, characterized by frequent discharges of semen at stool, and by nocturnal pollution; and also, when the erections are defective or totally wanting, while sexual appetite is more or less unabated. The cases witnessed and treated by the writer were interesting, although slight, and yielded readily to the treatment employed for the correction of the parent disease.

Treatment.—This may be distributed into preparatory and curative, and the methods embraced by this arrangement have been adopted for many years by the writer. In many cases more or less preparatory medication will be required, for the purpose of restoring solubility to the bowels, and to refresh and to equalize the secretions generally. For these purposes mild impressive cathartics will, in most cases, be found to meet the indications fully, aided by a restricted diet both as to quantity and quality of food, and freedom from improper mixtures. One or two of the pills of the subjoined formula, taken at ordinary bedtime, and repeated if necessary, will generally meet the indications.

R. Aloë socot., ʒi;

Pulv. jalap. rad., ʒij;

Pulv. colocynth. pulp., ʒss;

Aq. fontan., q. s.

Make xiiij. pills. Sum. i. or ii. at night.

If the secretions ameliorate reluctantly, one grain of ipecacuanha may be united with the pills at night, and repeated until the desired effect is produced. After the

bowels seem to act properly the pills need only to be given when necessary, and the rule adopted by the writer in such circumstances has been to give the pills at night if no action from the bowels has taken place during the day.

In some cases when the digestion is much impaired and the stomach disquieted by acidity, chalk in water in teaspoonful doses after meals, or the aloë bitter after dinner and at bedtime, affords much relief.

R. Aloës, ʒijss.;
Sod. supercarb., ʒivss.;
Spirit. lavend. compos., ʒij.;
Aq. fontan., ʒx.

Dose, one drachm bis in die.

Frequently this may be used both as antacid and aperient, without the pills. Now and then, when the appetite is greatly impaired, the use of the nitro-muriatic acid mixture, an hour or so before meals, proves highly beneficial in doses from seven to twelve drops, largely diluted.

R. Acid. nitric.,
Aq. pur., } ss ʒss.
Acid. muriat., }

Dose, vii. to xii. gtt. bis vel ter in die.

In few cases will the use of mercurials be found necessary. Gentle demulcent diuretics can seldom be dispensed with, while those of active powers should generally be inhibited. A carefully regulated diet, somewhat restricted as well as simplified, should generally be enjoined. Only three meals per day should be allowed these patients, and such as are more or less dyspeptic would do better with only two. Solid animal food and milk taken into the stomach at the same meal, in the opinion of the writer, are incompatible and should be inhibited, especially with patients subject to indigestion. It is of the first importance that persons laboring under this disease guard against catarrhal influences, as they invariably aggravate it.

Curative Treatment.—This necessarily must be constitutional and topical. The medication advised in the preparatory treatment will in a great degree be applicable to this as auxiliary to topical means, which are to be relied on chiefly. A soluble state of the bowels must be carefully maintained, gentle diuretics will be required, the secretions as far as attainable should be kept free, and the diet restricted and carefully regulated. In a majority of instances it will be necessary to employ also eutrophics, such as deobstruents, stimulants and tonics. As a deobstruent the nitro-muriatic acid mixture is to be preferred, which acts also as a potent secretory chologogue. This

valuable remedy will be particularly applicable when the biliary secretion is defective and when the appetite fails. It will also be demanded in the complications from enlarged prostate, and when the urinary secretion is accompanied with an oxaluric condition. Even in locomotor ataxia it will be allowable and proper in reference to its deobstruent action; and when employed should be given in the doses and forms of administration advised in the preparatory treatment.

Stimulants and tonics will be demanded in cases attended with feeble pulse, and frequent fits of low spirits, or nervous pain; and when there is deficiency of organic tone or an anæmic condition. Brandy variously served up is the most suitable stimulant; while the cold infusion of wild-cherry bark—prunes Virginiana—tincture of nux vomica, porter, phosphate and iodide of iron, and the simple tincture of gentian, are to be preferred as tonics. These measures, however, are in a degree to be regarded chiefly as auxiliary to the topical treatment which is our chief reliance.

The topical remedies which promise most benefit, and from which cures chiefly result, are the nitrates of silver and copper. In a large majority of the cases treated by the writer, the nitrate of silver has been preferred; but examples, now and then, have come into his hands, which yielded readily to the nitrate of copper, after having been treated unsuccessfully for a length of time by its kindred preparation the nitrate of silver. The former seems to impress the structures upon which it acts more profoundly than the latter, and, on that account, probably, is better adapted to cases of some standing, in which the textures of the affected organs may be more extensively involved. In such examples the orifices of the ejaculatory ducts are often found enlarged and projecting into the urethra, as indicated by cautious sounding of that portion of the canal, as well as by hemorrhage, and more or less disturbance of the urinary flow, especially enfeebling and reduction of the stream. The nitrate of silver, however, may generally be employed in these cases as the initial remedy, and continued until a sufficient trial of it has been made, when it can be laid aside, and the nitrate of copper substituted, in the event of its failure. The copper-salt causes more pain, and on that account the nitrate of silver should invariably be tried first. The watery solution is the form used by the writer in a very large majority of his cases, and he employs the two salts of equal strength, varying from

four to twenty grains to the ounce of pure water.

It is best to begin with the weakest solution, and if found inefficient after one or two trials, to employ the stronger. The applications may be repeated once in five, six or eight days, until the symptoms ameliorate, as manifested by general improved feeling, which patients themselves never fail to report, and which the medical attendant hardly ever fails to recognize from visit to visit. As the improvement advances, the intervals of using the injections may be lengthened, until, finally, they can be discontinued. It will not be necessary to use more than one or two drachms of the solution for an injection, and from two to three minutes will be long enough to retain each one. The urine should be retained in every case before the fluid is applied the first time, unless there are good reasons for believing that the mucous lining of the bladder is decidedly implicated; and in slight cases it would be safest to do so throughout the treatment. When the vesical mucous membrane is affected the bladder must always be evacuated before using the remedy, as its entrance into that organ, and action upon the diseased mucous lining, are necessary parts of the treatment. Indeed, if there is decided irritability of the mucous coat of the bladder, it will be proper to inject that organ directly, and for the purpose three or four ounces of the weaker solution may be introduced and retained from two to eight minutes, and before the fluid is introduced the vesical cavity must be washed out with tepid or cool water. This is a painful operation, but in a few hours the pain abates, and then only recurs during micturition for one or two days. It is often followed by hæmorrhage from the bladder, which generally abates in a day or two. The injections of the prostatic urethra likewise often give rise to bleeding, which ceases after two or more days.

After two or three injections, in most cases, very marked general improvement can be perceived; the patient becoming more cheerful, is less averse to company; enjoys society, as well as his meals; if the locomotive organs have suffered pain or incoordination, they are more or less relieved; the vetiginous sensations have diminished; there is improvement in the feelings as well as in the exercises of the genito-seminal organs; and the patient sometimes represents himself as a newly-formed being. Cases frequently occur, however, in which relief is more tardy, and in some instances

months will be required before decided amelioration takes place. In these examples it will not only be necessary to repeat the injections frequently, both to the seminal orifices and vesical cavity, but to employ also constitutional measures. It is often the case that the primary irritation is kept up by an oxaluric condition of the urine, to correct which the nitro-muriatic acid mixture is particularly adapted. Excessive nervous sensibility, or pain in the region of the genital organs, if found to disquiet much, will require narcotics, especially of nights, and small landanum enemata or suppositories should then be used. Pain, or a disagreeable feeling of weakness, or immobility of the loins, will require counter-irritation over that region from time to time; and anapisms, Granville's lotion, or dry cupping, can be employed for the purpose. In some cases repeated vesical injections of the strong solution of caustic will effectually relieve the dorsal pain after resisting the free use of narcotics. A soluble state of the bowels throughout the treatment should be maintained.

Examples occasionally occur, attended with undue nervousness, in some instances simulating insanity, and greatly disquieting patients and friends. In such cases internal narcotics will be allowable, but their tendency to disturb secretion renders them somewhat objectionable. Bromide of potassium, taken in cold infusion of wild-cherry bark, already referred to, in doses of from five to twenty grains, is better suited to these examples than narcotics, especially with females. Three or four doses during the day generally compose patients, and without the slightest disturbance of the secretory exercises.

When locomotor ataxia exists, even when of some standing, the treatment which has been briefly considered, in a majority of cases, will be equally applicable. In some exceedingly interesting examples of this complication the writer has employed it with most gratifying results. One of them was attended with complete incoordination of muscular action of both inferior extremities, with very considerable ataxia of the motive powers of the upper also, and incontinence of urine. In this case, too, the nervous erethism was so intense as to simulate insanity so closely as to induce the court of the county in which the patient resided to place his property in the care of guardians. Several others of the same description, but less strongly marked, were relieved, and locomotion more or less completely restored. In one of the cases last

referred to, pain of the right hip and groin had existed nearly an entire year, attended with immobility, or rather ataxia of musculation, in which the most active medication for neuralgia and rheumatism had been employed, without the slightest relief, before coming into the hands of the writer. This interesting case was diagnosed genito-seminal neuropathia by him before asking a question, the diagnosis being deduced from the well-marked facies prostatica of the patient. A single application cured the disease promptly and permanently.

Cases of angina pectoris, palpitation, and vertigo, have been successfully treated by the writer in some instances by caustic urethral injections. In these cases there could not be a doubt that seminal neuropathia caused them, and it is not improbable that they are generally due to it.

With females, along with the treatment of the seminal neuropathia, measures will be demanded specially designed to medicate the existing complication. If ulceration of the os or cervix uteri be the complicating disease, cauterization with the nitrate of silver, or the acid nitrate of mercury will be required. When the former is employed it should invariably be used in the solid state; and the latter can be most conveniently as well as efficiently applied with a small mop or brush. In either case weak salt water should be freely injected over the cauterized parts as soon as possible after the remedy is applied, to guard against accidental lesion of the contiguous surface, and these operations may be repeated once in five, six, to twelve days, until the ulcers heal.

This complication is peculiarly liable to coexist with an irritable state of the bladder, and the writer inclines to believe the bladder affection is generally, if not always, the precursor; and to render the treatment effective, vesical injections will also be demanded. These two operations afford most benefit when they are used on alternate days; yet, to hasten the treatment, the writer has often employed them at the same sitting, and without causing undue suffering. The irritation in seminal neuropathia of females seems to begin in the meatus urinarius, from which points it extends backwards along the urethra, and finally over the mucous coat of the bladder. In numerous cases the writer thinks he has relieved the neuropathia by simply cauterizing the urethra when ulceration did not exist, and such cauterization invariably facilitated the healing of the ulcer of the uterus when present. So often was it the

case that the writer—when much obscurity existed as to the causation of these ulcers with unmarried females—was disposed to refer them to the urethral erethism. It may be remarked that these conditions of the urethra and uterus, occasionally, are attended with locomotor ataxia, chiefly of the lower extremities, with unmarried females, not unlike the incoördinate movements of chorea, which promptly ameliorated under the caustic treatment. One of these cases experienced some irregularity of musculation of the superior extremities also, as well as slight alienation of mind manifested by a disposition to soliloquize and to move the lips as if talking: the subject was a young unmarried female, of highly cultivated mind.

Impairment of sight and hearing occasionally accompanies this complication, and in one instance the deterioration of vision amounted to almost total blindness, which had continued some months before the patient, a married lady, consulted the writer. In this case a morbidly sensitive urethra coëxisted with the ulceration of the os and cervix uteri, as well as general nervous disorder, and extreme depression of spirits bordering on melancholy. The general health had suffered greatly, and altogether the condition of the lady was most unpromising; yet it ameliorated unexpectedly, but promptly and completely, under the treatment by cauterization of the urethra and cervix uteri. In two weeks the sight was perfectly restored, and in six the lady returned home so far recovered as to require nothing but time and proper nourishment to perfect the cure.

In a very great number of cases of similar character, but of variable intensity, a like treatment was employed, with unvarying success, seeming to justify the propriety of the curative measures adopted, if not to verify the correctness of the diagnoses. It was never found necessary to address remedies directly to the complications involving the functions of sight and hearing. In some cases, when such complications are attended with intense pain of the loins, spinal irritation, by dry cupping, friction, or by the use of rubefacients of irritating qualities, may be resorted to with advantage. Counter-irritation may also be usefully employed when ataxia of musculation exists, especially dry cupping, over the entire spine, whenever both the lower and upper extremities are implicated.

Remarks.—Genito-seminal neuropathia, as the writer would denominate the disease

termed progressive locomotor ataxia, is quite a manageable malady, especially in its earlier stages, according to his experience. Even after very considerable incoordination of functional movement has followed, both muscular and nervous, relief more or less complete can be secured by treatment. During the last twenty-five years the writer has treated numerous cases of this disease, and he has yet to meet with the first patient not greatly benefited or cured. Medicines, however, of themselves will not effect cures, or in a general way afford much relief. The various nos-trauma which have been published throughout the world as remedies for seminal weakness, were designed to combat this affection without a knowledge of its true nature, and they have been as inefficient as diversified in character.

Lallemand, of France, was the first to employ the true and only reliable method of treating the disease, regarded by him as spermatorrhoea, but it does not appear that he considered it as tending to, or even liable to superinduce locomotor ataxia; and although he seems to have attached great importance to his plan of topical treatment, it must have been very inefficiently employed by him, and the curative results by no means satisfactory.

There can be little doubt that irritation of the orifices of the ejaculatory ducts, and perhaps of those ducts themselves, as well as of the seminal vesicles, is the true morbid condition upon which spermatorrhoea depends with males; and it is equally probable that the irritation is chiefly exaltation of sentient impressibility, with more or less enfeebling of the organic tone of the implicated structures. The innervation is often painful—in some instances exquisitely so—and invariably more or less ataxic; yet it is essentially neurotic and devoid of inflammation, seeming to be a form of neuralgia.

Now and then the erethism of the seminal orifices is connected with sympathetic disturbances in remote parts, of painful character, an example of which was referred to in this paper, and which was relieved by a single cauterization. In this case there was immobility from pain, but no incoordination of the powers of muscular motion from ataxia. It is difficult to account for the great diversity of locomotor disturbance in these cases, some being attended with acute pain as well as immobility, while others experience very little if any, and every grade of incoördinate muscula-tion, in some instances amounting to a

paralytiform condition bordering upon complete paralysis. The same diversity obtains in the other sympathetic disturbances, especially in the visual exercises, and hearing, as well as in the impairment of the memory, and in the exercises of the mind generally. For a number of years the writer has believed that a large proportion of the cases of insanity as well as of suicide was due to genito-seminal neuropathia. Indeed, he has seen cases of insanity in which the relations of cause and effect existed, in which sanity was restored by the caustic treatment.

With females the sympathetic disturbances of musculature are confined chiefly to the loins, hips and groins, the superior as well as the lower extremities being rarely affected in any marked degree, while vision, hearing, and the spirits, together with the memory, often suffer. They frequently suffer from insanity, and doubtless many of them are driven to suicide by the melancholy often accompanying this disease. In an interesting case of this cruel affection, treated by the writer, ulceration of the os and cervix uteri, and mental derangement, coëxisted with the seminal neuropathia. The alienation of mind amounted to furious mania, and had existed for many weeks. This case yielded speedily and perfectly to the caustic treatment used to the uterus and vesico-urethral mucous membrane.

The writer believes that females are fully as often affected with the disease as males, especially those who have indulged too freely in sexual intercourse or masturbation; with such, ulceration of the os and cervix uteri, as well as vesico-urethral irritation and nymphomania, often coëxist.

In many of the cases treated by the writer, more especially with males, but occasionally with females also, a remarkable thrilling, burning sensation was felt in the bottoms of the feet and in the toes when the caustic injections were applied to the urethra and bladder. Occasionally similar sensations were experienced by females when the os and cervix uteri were cauterized. Like sensations were now and then felt in the fingers; and in both cases when the muscular movements had become more or less ataxic and incoördinate.

In conclusion, the writer will state that he suspects the interesting case referred to by Dr. L. O. Butler in the number of the Boston Medical and Surgical Journal for December 24, 1868, page 826, as well as those cited by S. G. Webber, M.D.,

in the same Journal for January 7, 1869, page 354, were examples of genito-seminal neuropathia.

Prince Edward C. H., Virginia.

Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

CHARLES E. VAUGHAN, M.D., SECRETARY.

The annual meeting was held at Waltham, April 20th, the Vice President, Dr. Holmes, in the chair.

After the usual regular business, Dr. Walcott alluded to the order adopted by the Councillors of the Massachusetts Medical Society in 1837, viz., that any one practising medicine a year without applying for admission to the Society, shall be regarded as an irregular practitioner. He inquired if this order was regarded in consulting. Some discussion ensued. A case was mentioned of a partnership now existing between a member of the Society and such a practitioner. It was decided that such cases should be brought to the notice of the Supervisors.

A communication was read from the Middlesex North District Medical Society, endorsing the action of the Middlesex South in fixing \$25 and \$50 as the proper fees for coroners' autopsies.

Dr. Wellington was chosen to fill the vacancy in the committee upon this matter, caused by the death of Dr. Anson Hooker.

On motion of Dr. Hoyt, a committee of three was appointed to prepare resolutions commemorative of the death of Dr. Hooker.

An animated discussion occurred upon the admission of physicians to the Massachusetts Medical Society who are graduates of schools in other States. Finally, the following resolution, introduced by Dr. Nichols, was adopted, viz. :—

Resolved, That in the opinion of the members of the Middlesex South District Medical Society, all persons, wherever graduated, presenting themselves as candidates for admission to the Massachusetts Medical Society, should undergo a satisfactory examination before the Censors of the district in which they reside; and that our Councillors be instructed to use their influence to bring about a change to this effect in the laws of the Massachusetts Medical Society.

The orator, Dr. Walcott, read an interesting paper upon the hydrate of chloral, embracing a *résumé* of its history, chemical

composition and physiological action, illustrated by cases and the results of experiments upon animals. He concluded that much of the uncertainty in its action, and the difference of opinion as to its safety, is due to the inequality of the specimens and the difficulty and expense of obtaining a pure article.

Dr. Sullivan, of Malden, read a paper upon the use of atropia in whooping cough. He uses a solution containing one grain to the ounce of water; the initial dose for a child being from one to three drops. The dose is gradually increased to twenty drops, if necessary, once daily. The subject was illustrated by cases. In one case the progress of the disease was illustrated by a strip of paper bearing the mother's record of the paroxysms, in holes pricked with a pin, after Trouseau's plan.

Dr. Hunt reported a case of diabetes and one of Bright's disease, with specimens of urine from each, before and after the addition of reagents.

Dr. Lincoln reported the results of autopsies in two cases of sudden death. The first, a laborer of fine physical development and in apparent good health, had complained only of a tired feeling at times. While going to his work, he stumbled and fell, but recovered himself, falling twice again in the same way. Died in ten minutes from the first attack. On examination, the cerebrum was apparently healthy, but there was general softening of the brain substance of the cerebellum.

The second case was that of a woman generally strong and healthy. She had complained for nearly a week of fatigue, slight headache and earache, with constipation. The tongue was furred, and she had vomited several times. Thought she had "taken cold." She worked until three days before death. Three hours before death a convulsion occurred suddenly, lasting half an hour or more. Did not recover her consciousness. Examination showed pretty general softening of the substance of the cerebrum and cerebellum, most marked on the left side, with general anemic appearance of brain. At the base of the cerebellum, on the right side, there was about a drachm of fetid pus.

The Censors reported the admission of Drs. Reuben Willis and Horace Eugene Marion.

The Society adjourned at a quarter past two.

Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 5, 1870.

NOTES AND EXTRACTS FROM THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

Transitory Mania.—The discussions on this subject which have appeared in this JOURNAL have called for a review signed with the initials I. R. If anything were needed to show the importance of this subject, the want is supplied by the intervention in the controversy of the distinguished pen of Dr. Isaac Ray.

Somewhat more than a year ago we put the question—can a man be admitted to be insane, for a few minutes, just long enough to commit a crime, though always perfectly sane before and after the act? In a note accompanying the article of which this question is a part, Dr. Jarvis, on the basis of "the doctrines given by Marc, Esquirol, Castelnau, Duvergie, Maudsley, and also by Woodward and Bell, and admitted by Ray," seems to infer an affirmative answer.

In an article published in our issues of June 10th and 17th, 1869, Dr. Jarvis goes more fully into the subject, amplifying the quotations just referred to. The same writer, at a later date, applies the maxims he advocates to the case of Samuel T. Andrews, tried for the murder of Cornelius Holmes, in a paper communicated to this JOURNAL, and furnished in advance to the printers of the Report of Andrews's Trial. A reviewer in the Boston Medical and Surgical Journal takes exception to the position of Dr. Jarvis. At this point the writer, I. R., in the *American Journal of the Medical Sciences* interposes, defends Dr. Jarvis, and is quite severe upon the opponent of the latter—viz., "N. F." It strikes us, however, that his remarks are merely of the nature of an *argumentum ad hominem*. For instance, he quotes the words of N. F., "we must guard against the danger, great at the present day, of letting a high sounding foreign name go far as authority with us," and then replies as follows:—

"This is Native Americanism with a vengeance. We rubbed our eyes, wiped our

spectacles, and read the passage a second time, before we were quite sure that we read it correctly, and then we wondered by what curious dispensation it had happened, that the writer, who would have been a brilliant light among the Know-nothings, should have been born so far out of due time. His life must be a wretched one in these degenerate days. We suppose that on the occasion of the Humboldt centennial celebration, a few months since, when the people of Massachusetts—high and low, learned and unlearned, gentle and simple—were listening to that noble panegyric upon the great philosopher, from the lips of him of all others most worthy to receive his mantle, he retired to his room, and, like Jacob of old, rent his clothes, put sackcloth upon his loins, and mourned over the distinguished honors thus showered upon a couple of foreigners. Within our knowledge, such intense nativism has never been paralleled but once. An American youth of Irish parentage was once complaining bitterly of being flogged by his father. Not that it hurt him much, but it was the idea of "being licked by a d—d foreigner."

In our issue for December 30th, 1869, however, there was a communication by still another disputant, entitled "The Novel Defence attempted at the Trial of Samuel M. Andrews for Murder." As no reference is made in the review under consideration to that article, we presume that I. R. had prepared his paper for the *American Journal of the Medical Sciences* before the close of the last year. We quote therefore the following passage from the communication entitled "A Novel Defence," &c.:—

"The cases quoted to sustain the theory [of Dr. Jarvis] are cases of the past. They have been handed down from one author to another rather as the curiosities of disease than as types to be looked for and expected. Many of them were collected and first reported by an enthusiastic Frenchman, who, with many excellencies, was always ready to make a striking impression. All are most briefly reported. Some of them were evidently cases of continuous insanity and not instantaneous. In others there seems to be no proof that any insanity existed. Of the whole class it may safely be said, as has been well remarked by Bucknill, the best English authority on criminal insanity, that the evidence upon which they rest is unsatisfactory. With the enormously increased facilities for observation afforded by the

hospital system of the present day, if such a form of disease really existed, the reported cases ought to have multiplied a hundred fold. Why is it that we are told to fall back upon the observations of Esquirol and Marc and Castelnau? With lunatic hospitals scattered at short distances over our land, each having a medical staff on the alert to make discoveries in their specialty, and all consulted upon most of the peculiar cases arising within the circle of their duty, why is this form alone unreported and unheard of? Why are they unreported anywhere except in defence of crime?"

Since this statement (by an expert) has never been replied to, our question—can a man be admitted to be insane for a few minutes, just long enough to commit a crime, though always perfectly sane before and after the act?—has never been settled by those to whom we look for instruction in the matter.

The latter and larger portion of I. R.'s article in Hays's Journal is occupied with a counterblast at lawyers and others, for their complaints of the conflicting opinions of experts as given on the witness stand. He well says—

"That discovery, improvement, progress, which are the true glory of physical science, are fatal to unanimity of opinion. Men look at the same thing from different points of view, under different lights; in short, with every variety of preparation, and thus it is that the same facts often present a very different signification to different men, though pursuing a common study. The conclusions of physical science do not follow one another like the successive steps of a mathematical demonstration, simply because they constitute a very different class of truths. Are we to believe that geology is but a tissue of idle fables, because on some important points scarcely two geologists agree? Are we to pronounce the astronomical researches of Kepler and Tycho Brahé to be utterly barren, because they differed respecting the Copernican system? Are the labors of naturalists no better than child's play, because of the world-wide difference between Mr. Agassiz and Dr. Darwin, touching the origin of species? Even in pure mathematics we fail to find this new judicial test of fitness for the witness stand. In the course of a discussion on Quaternions, a few months since, in the National Academy of Sciences, did we not hear Professor Alexander dissenting most

emphatically from the general conclusions of Professor Pierce? In fact, the most practical men, those who never venture a hair's breadth from the line of their own experience, are apt to differ as widely as others, when they undertake to generalize their knowledge. Who ever knew of a jury of sea-faring men appointed to examine and report on the seaworthiness of a vessel, to reach a unanimous conclusion? And yet such a result is regarded as a proof, not so much of ignorance as of wide experience joined to rational caution, by those who would heap indignities on medical men who should, conscientiously and intelligently, differ as to the mental soundness of a given individual.

"Such an estimate of the value of medical evidence given by experts comes with an ill grace from lawyers, with their proverbial experience of the uncertainty of their science, in spite of its accumulations of wisdom, of the severity of its logic, and the sagacity of its practitioners."

We may add that when the long-established maxim that twice two must always make four, and that it is in the nature of things impossible that in any sphere of existence twice two should make five, is called in question; a mathematical professor of the highest eminence declaring it to be to him conceivable that the Almighty could so arrange things that twice two should make five; under these circumstances, we need not be so much mortified as we are expected to be at the question, "who shall decide when doctors disagree?"

We must confess, however, that we are not quite so easy in mind at the present position of experts as to cases of alleged homicidal insanity. It is to be lamented that when the law has asked them for light they have so often given only the clouds of reciprocal contradiction, and that, too, upon points which we outsiders would almost suppose they should be as well agreed about as two skilled auscultators would be relatively to the existence in a patient of pulmonary consumption. In regard to the facts—i.e., the rational symptoms and physical signs—these latter would be likely to concur; and if not in accord as to the influences, they would probably agree that there was room for doubt.

With these radical and widely-published differences of opinion among those who

have been put in the position of experts in insanity, it is hardly perhaps to be wondered at that the uninitiated should lend an ear to the stories (groundless we have always maintained them to be, on account of the really expert attainments of those in charge of our public lunatic establishments) of false sequestration in madhouses. It has latterly too often happened that when a man has been put upon trial for criminal homicide, his counsel have produced expert testimony that he was insane, which was rebutted by the positive statement of another expert that he was sane. And, yet, it has not been the ordinary case of an ignoramus, or a half-educated doctor dressed up as an expert, merely because he held opinions suited to the purposes of counsel. But, the scientific witnesses on both sides have been men of learning, if not of practical experience.

By way of remedy for this state of things we have only to repeat the call now reiterated from many sides that expert witnesses be appointed by judicial authority. In that case we submit, His Honor, in making his selection, would be less likely, in seeking to enlighten himself and the jury as to the sanity of the prisoner, to inquire how many books on insanity the so-called "alienist" had read, or yet how many thousand patients he had seen collected in the hospitals he had visited. The test questions would more likely be how much experience he might have had in the practical diagnosis of mental disorder; and how great were his familiarity with the various phases of lunacy as presented by patients for a long time under his daily supervision.

As to the Andrews case we will make this statement, although it does not affect the general principles laid down by Dr. Jarvis, or the others above referred to. In addition to Dr. Choate, then of the Taunton Lunatic Asylum, who testified to the sanity of the prisoner, Andrews was visited after his arrest, and at the instance of the counsel for the defence, by another eminent superintendent of a lunatic hospital. The latter gentleman very naturally was not called into court to give his opinion, simply because that opinion was that though Andrews by the laws of heredity ought to

have been insane, he in point of fact was not so.

Dr. S. WHEA MITCHELL thus opens a paper in the *American Journal of the Medical Sciences*, entitled "Observations on Poisoning with Rattlesnake venom."

"I have been able during the past summer to make observations upon certain points connected with snake poisons, which serve to complete portions of my former studies. I have also afforded to Dr. Richardson an opportunity of studying with higher powers than those formerly used by me, the blood of animals which were sick or dead from snake venom. His observations prove to my entire satisfaction the correctness of the belief I have already published as to the peculiar corpuscles described by Dr. Halford. Although I had long since criticized this gentleman's views, and pointed out that what he saw were probably leucocytes, no one as yet has shown how it is that these come to assume the appearances described by Halford. Thus far all observers have failed to see the corpuscles of Halford, and in a letter to me this gentleman intimates his own doubts as to their being new formations. Apart from this matter, Dr. Richardson's notes are of value as confirming many of my former conclusions as to the blood."

This is Dr. Richardson's summary:—

"Proceeding now to group together the results of these experiments, it will be seen that in the example of a rabbit, dog, and goat, so poisoned by rattlesnake venom as to survive its insertion from one to six hours only, whose hearts were allowed to remain unopened from twelve to twenty-four hours after death, the temperature varying from 75° to 90° Fabr., the blood when removed from the cardiac cavities in such a way as to avoid all contamination, and carefully examined with a high power, exhibited cells corresponding perfectly to those described by Prof. Halford; yet that these so-called 'peculiar cells' were always mingled not only with white blood corpuscles in their ordinary 'pearly and opaque' condition, but also with those in various stages of enlargement and alteration, such as may be at any time produced in the white globules of normal blood simply by diluting the liquor sanguinis with water; and further, that in the case of the goat, when a majority of the 'peculiar cells' presented the usual character of being multinucleated, the white blood globules, if distended by water, exhibited the

same peculiarity. We may, therefore, I think, fairly conclude that the abnormal corpuscles in these particular instances were in reality only white blood globules which had undergone an alteration similar to that caused by reducing the specific gravity of the blood, and so establish a strong presumption (whose correctness Prof. Halford can alone decide) that the 'peculiar cells' described by him as resulting from the poison of snake bites are precisely analogous in their character.

"In regard to the 'thinning' of the blood, I hope to have an opportunity of deciding as to its amount at some future time, by taking the sp. gr. of that fluid at intervals after death by means of a hydrometer. To do this, however, one of the larger animals, as a horse, for example, will be required."

Dr. DaCosta thus concludes his Clinical Notes on Chloral, in the *American Journal of the Medical Sciences*.

"I may record my belief, drawn from studying the action of chloral, that it is an important addition to our therapeutic means—chiefly, however, as a hypnotic. Its action as a destroyer of pain is limited; nor do I think that it can compete with ether or chloroform to produce the insensibility requisite for surgical operations. Its chief value seems to be that of an auxiliary to opium, or to take its place when opium is not admissible. It is, however, not so certain; nor is it ever likely to displace that peerless drug, of which Sydenham declares that without it Medicine would be as a cripple."

Dr. H. C. Wood, Jr., has succeeded in inducing profound anaesthesia in a cat by the vapor of cold alcohol.

TAUNTON LUNATIC HOSPITAL.—The resignation of Dr. George C. S. Choate, the able Superintendent of this institution, to which we referred in the JOURNAL of March 3d, took effect on Saturday, April 30th, and his successor, Dr. William W. Godding, has entered upon the duties of the office.

Dr. Godding is a Massachusetts man, a son of the highly respected Dr. Godding, of Winchendon, Mass. He has had ten years experience in the treatment of the insane, having been for three years first assistant in the Hospital at Concord, N. H., and for the last seven years in the Government

Hospital for the Insane at Washington, D. C., where he has been first assistant under Dr. Nichols.

Dr. Godding comes thither with the very highest testimonials to his character and ability from Dr. Nichols and the Trustees of the Washington Hospital, from Miss Dix the well-known philanthropist, and from many others who have had opportunities of judging of his rare qualifications for the office. He has been appointed after careful investigation, and with entire unanimity, by the Trustees of the Taunton Hospital, and there is every reason to believe that his success will fully justify the wisdom of their choice.

KNOWLEDGE FOR THE PEOPLE.—(From *Harper's New Monthly Magazine* for March, 1870, page 507.)

"It" (the human blood) "completes the entire circuit from the heart to the extremities, from the extremities to the heart again, about twice every second. While the reader has been perusing this paragraph this ceaseless tide has completed, probably, at least one hundred and twenty of these circuits."

Is that so, Mr. Editor? SUBSCRIBER.

Dalton says, in his Physiology, that if a certain experiment "were altogether decisive it would demonstrate that the blood performs the entire round of the circulation in from 20 to 25 seconds. But it is not so conclusive in this respect as might be supposed. * * * The truth is, however, that we cannot fix upon any uniform rate which shall express exactly the time required by the entire blood to pass the round of the whole vascular system, and return to a given point."

WHAT does it mean—the paragraph quoted as follows?—

"*Exposure of Women in Classes*.—The New York Medical Gazette strongly disapproves of the practice, apparently a common one in American medical schools, of exposing women before a large class for the purpose of instruction. We quite agree that much more would be learned by small classes frequently held, and the patient would suffer less."—*British Medical Journal*, April 16, p. 402.

MIDDLESEX NORTH DISTRICT MEDICAL SOCIETY.—At the annual meeting of this Society, held in Lowell, April 27th, 1870, the following officers were re-elected for the year ending April 26th, 1871 :—

Joel Spaulding, of Lowell, *President*; Levi Howard, of Chelmsford, *Vice-President*; John H. Gilman, of Lowell, *Secretary*; N. B. Edwards, of North Chelmsford, *Treasurer*; Franklin Nickerson, Lowell, *Curator and Librarian*; John O. Green, of Lowell, *Commissioner of Trials*. *Standing Committee*—George E. Pinkham, of Lowell, Charles Dutton, of Tyngsborough, Moses G. Parker, of Lowell. *Councillors*—Chas. A. Savory, of Lowell, John C. Bartlett, of Chelmsford, Walter Burnham, of Lowell, Joel Spaulding, of Lowell, Nathan Allen, of Lowell, Francis E. Plunkett, of Lowell. *Censors*—Nathan Allen, of Lowell, Hanover Dickey, of Lowell, Charles A. Savory, of Lowell, Daniel P. Gage, of Lowell, N. B. Edwards, of N. Chelmsford.

THE LATE FATAL MISTAKE AT CHARLESTOWN.—The result of the inquest in the recent child-poisoning case, is the following verdict :—

That the child, Frederick W. Libby, came to his death on Saturday, the 23d of April, at 9½ o'clock, P.M., by means of an overdose of opium, administered by its grandmother, through the advice of Charles O. Wilson, an apothecary clerk. And the jurors further say that the said Wilson is guilty of gross ignorance in advising such a remedy, and that Dr. Wm. L. Bond, the druggist, from whom the opium was obtained, is culpable in allowing a poison to be taken from his store without a proper label, and without inquiring as to its use.

CEREBRO-SPINAL MENINGITIS.—We receive accounts from various parts of the country, from central Mississippi: from Quincy, Florida; from Erie County, Pennsylvania; from Central South Carolina, and from Southern Georgia, that limited but malignant epidemics of cerebro-spinal meningitis are prevailing. The *Erie Dispatch* says :—

"The singular fatality that has attended this dread malady has thrown the community into a state of abject terror, and many are flying from the place to escape from it. The skill of the local physicians has been baffled by it, and the best medical aid of this city has been peremptorily summoned. From the experience of some of our physi-

cians in meeting this malignant disorder in their army practice, we anticipate that a check will be put upon it."

Our own hopes are less sanguine; army experience did not teach any especially successful treatment for cerebro-spinal meningitis.—*Med. and Surg. Reporter*.

THE Bill which the House Committee of Naval Affairs has agreed to report, differs from the one reported and tabled in the House of Representatives a year ago, chiefly in casting more shadow from less substance. From 1854 to 1862, rank in the medical staff came within one grade of that of the line; the highest line rank being captain, while surgeons of more than twelve years held the relative rank of commander. The present proposition is to make the highest medical rank five grades inferior to that of the line, and to place the surgeon seventh in the descending scale. And this in face of the fact that in the navies of civilized Europe, where class distinctions are more jealously guarded than here, medical officers attain the second, or at lowest, the third positions on the list, ranking as vice-admiral, or rear admiral. We hope that the proposed bill may not pass without material amendment in this respect.—*New York Medical Gazette*.

INODOROUS SULPHIDE OF CARBON.—M. Cloez purifies bisulphide of carbon by leaving it twenty-four hours in contact with powdered corrosive sublimate. The mixture requires agitation. It is then carefully decanted and distilled from a little inodorous fat with the aid of a water bath. The sulphide, when purified in this manner, has an ethereal odor, and is suitable for the extraction of odorous oils, &c.—*Medical Press and Circular*.

LOSS OF SPEECH AFTER CHLOROFORM.

A SERVANT girl, says the *Alg. Med. Centr. Zeit.*, for the sake of the extraction of a tooth, inhaled chloroform for a very short time. On awaking, she had lost the power of speech, could not utter any sound whatever, and remained in that state for five weeks, in spite of various remedies, especially electricity. After this time she began to speak in a low tone, and was put under appropriate treatment. It is supposed she suffered during anaesthesia from rupture of some cerebral vessel. She had never been hysterical.—*Lancet*, April 16.

Medical Miscellany.

WE expect to have next week a full account of the doings at the present session of the American Medical Association at Washington. We go to press with this week's Journal to-day—Wednesday. Meantime the following items have come to hand:—

THE NATIONAL CONVENTION OF MEDICAL COLLEGES.—The National Convention of Medical Colleges held to-day [Tuesday] resolved that a committee of nine be appointed to ascertain how many regular medical colleges are willing to become members of the Association of Medical Colleges. Each college so consenting shall elect one or more delegates, authorized to pledge their respective faculties to whatever plans of improvement in medical education may be adopted by the convention. These delegates are recommended to organize themselves into a permanent organization, with a view to coöperate with the American Medical Association. The chair appointed the following as a committee:—Professors S. N. Davis of Illinois, Samuel Logan of New Orleans, A. Hammer of St. Louis, T. Parvin of Louisville, S. D. Gross of Philadelphia, G. C. Blackman of Cincinnati, G. C. Shattuck of Boston, A. C. Pall of New York. The convention then adjourned sine die.

THE AMERICAN MEDICAL ASSOCIATION.—Washington, May 3.—Four hundred delegates were present at a meeting of the American Medical Association to-day. There were conflicting reports on the admission of delegates from medical societies and institutions in the District of Columbia which recognize colored physicians. They were referred without instructions to the committee on ethics. Further contested cases having been presented, a new committee on ethics, consisting of Doctors Alfred Stillé of Pennsylvania, N. S. Davis of Illinois, J. N. Kellers of Kentucky, and H. F. Askew of Delaware, was appointed to consider and dispose of the entire class of subjects. The annual address was delivered by Dr. George Mendenhall of Cincinnati, and the proceedings were suspended until the committee on nominations report. The delegates called on the President this evening, and were received by him in the East Room, assisted by Mrs. Grant.—*Telegram to the Associated Press.*

THE TROUBLES AMONG THE DOCTORS.—There was something of a crowd present this morning, when the meeting of the American Medical Association opened, because everybody interested thought there might be a muss over the question of giving the negro doctor his rights. The committee on credentials submitted majority and minority reports, the former excluding delegates from societies that admit colored physicians to consultation. There was much excitement on the reading of the reports, and if general discussion had been allowed, the thing promised to be very lively. Dr. Davis of Chicago adroitly staved it off by moving to send the whole subject to another committee, which may or may not report to-morrow. The question of color is mixed up with half a dozen other quarrels among the medical men in this district, and it will be a hard matter to get at a square vote on that distinct issue.—*Special Dispatch to the Boston Daily Advertiser.*

ERRATUM.—On page 332 of our last issue, instead of "a diploma," read *diplomas*.

TO CORRESPONDENTS.—Communications accepted:—Bilroth's Death from Chloroform—What are the Advantages of joining the Massachusetts Medical Society?—Normal Position of the Uterus—New Staphylococcal Needle—Differential Indications • • • • • Electrization—Review of Bonafant—Review of Gouge on Ventilation.

PAMPHLETS RECEIVED.—The \$100 Prize Essay on the Potato and its Cultivation. Prize offered by W. T. Wylie and awarded to D. H. Compton. Published by Orange Judd & Co., New York. Pp. 33.—Iodoform: its Therapeutic Effects. By Silas Kennedy, M.D., Newark, Delaware. Pp. 16.—The Transactions of the Medical Association of the State of Missouri. From its Re-organization, Dec. 10, 1867, to the Annual Meeting, April 27, 1889, inclusive.—Annual Report of the City Physician and Superintendent of Burials, for the year 1889. Lowell, Mass. Pp. 8.

MARRIED.—At Guilford, Vt., 27th ult., George F. Bigelow, M.D., of Boston, to Miss I. Gertrude Houghton. In this city, 3d inst., Joseph Garland, M.D., of Gloucester, to Miss Susan D. Knowlton, of Boston.—In this city, 28th ult., Dr. Wallace Seelye, of Cincinnati, to Miss Helen, daughter of Michael H. Simpson.

DIED.—At Philadelphia, 1st inst., of consumption, Dr. Josiah N. Willard, late Surgeon of the 1st Massachusetts Heavy Artillery, 34.—At Salem, 29th ult., Dr. William Webb, 75.

Deaths in sixteen Cities and Towns of Massachusetts for the week ending April 30, 1870.

Cities and towns.	Number of deaths in each place.	PREVALENT DISEASES.	
		Consumption.	Fever and Typhoid.
Boston . . .	116	26	13
Charlestown .	16	4	1
Worcester . .	14	2	0
Lowell	19	2	0
Milford	5	1	3
Chelsea	4	3	1
Cambridge . .	12	1	0
Salem	6	1	1
Lawrence . . .	6	0	1
Springfield . .	3	1	0
Lynn	9	0	0
Fitchburg . . .	4	2	0
Newburyport .	5	2	0
Somerville . . .	3	1	1
Fall River . . .	8	1	2
Haverhill . . .	4	3	0
	234	60	22

Worcester reports one, and Boston two deaths from smallpox. From all the above places there are reported four deaths from croup, three from typhoid fever, two from whooping cough, two from measles, two from diphtheria and one from scarlet fever.

GEORGE DERRY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending April 30th. 116. Males 62—Females 54.—Accident, 3—apoplexy, 1—congestion of the brain, 4—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cancer, 1—canker, 1—cerebro-spinal meningitis, 1—cholera infantum, 1—consumption, 26—convulsions, 1—croup, 3—cystitis, 1—debility, 3—diarrhoea, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 5—hemorrhage, 3—disease of the heart, 7—intemperance, 1—insanity, 1—jaundice, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 11—marasmus, 2—old age, 2—peritonitis, 2—pelvic cellulitis, 1—premature birth, 2—puerperal disease, 1—scalded, 1—smallpox, 2—disease of the skin, 1—suicide, 1—unknown, 7.

Under 5 years of age, 41—between 5 and 20 years, 13—between 20 and 40 years, 33—between 40 and 60 years, 16—above 60 years, 16. Born in the United States, 77—Ireland, 26—other places, 13.